

LETTERS

Syphilis: mimicking yet another disease!

EDITOR,—Owing to a higher risk of HIV transmission during seroconversion and a rise in the transmission of resistant HIV,¹ it is becoming increasingly important to diagnose primary HIV infection (PHI).² However, the diagnosis can be difficult to make as there is a wide differential diagnosis and conventional HIV antibody tests do not become positive until an average of 8 weeks after infection. HIV p24 antigen tests become positive at an earlier stage and are often used as part of a combined screening test for suspected PHI. These combined tests detect p24 antigenaemia, anti-HIV-1, and anti-HIV-2 antibodies and can assist in earlier diagnosis of HIV. We would like to present a case of false positive p24 antigen using one such test.

CASE REPORT

A 26 year old man attended the same day HIV testing clinic requesting an HIV test. He complained of symptoms, which had been present for 3 weeks and were consistent with PHI: headaches, fatigue, night sweats and enlarged neck glands, and later a rash on his body, spreading to his arms and legs. His last sexual contact was a casual male partner 2 months previously, with whom he had unprotected oral sex. His only previous two partners were female. On examination he had a widespread maculopapular rash, generalised lymphadenopathy, and oral ulceration.

An STI screen was performed, including an HIV test (Biomérieux Vidas HIV Duo) and syphilis and hepatitis A/B serology. The HIV test was HIV p24 antigen positive, and anti-HIV-1/HIV-2 antibody negative. The patient was informed of the result and given a provisional diagnosis of PHI, although he was advised that further tests were required, the results of which would be available the following day. He was subsequently found to be HIV-1 and HIV-2 antibody negative by two methods (Abbott AxSYM Microparticle Enzyme immunoassay or MEIA and Abbott Determine) and HIV RNA negative (Roche Amplicor). Furthermore, a syphilis EIA screening test (Abbott Murex ICE), was strongly positive. Hepatitis serology was negative.

Reference laboratory testing of the sample confirmed it to be HIV-1 and HIV-2 antibody and HIV p24 antigen negative. The syphilis result was confirmed at the reference laboratory as VDRL positive 1 in 32, *Treponema pallidum* particle agglutination test (TPPA) positive, titre > 1280, syphilis IgG ELISA positive, IgM ELISA positive. His symptoms rapidly resolved on treatment with intramuscular benzathine penicillin.

There have been very few reports of false positive p24 antigen tests and these have been mostly in transplant recipients using p24 antigen-only kits.⁴ Primary HIV infection and secondary syphilis can present with similar symptoms. Given that there are currently

several ongoing outbreaks of syphilis in the United Kingdom,⁵ it is very important to distinguish between these two diagnoses.

In this case the HIV screening test was positive, although subsequent testing of this sample by other methods showed it to be negative for p24 antigen and HIV-1 and HIV-2 antibody. Although this false positive result may have been the result of the secondary syphilis infection, it should be noted that the Medical Devices Agency evaluation report on the Biomérieux Vidas HIV Duo kit found it to have a high specificity (99.73%). Of 372 HIV-1 negative sera that were tested one was found to be repeatedly reactive.⁶

In our enthusiasm to diagnose PHI, the clinical similarity to secondary syphilis must be remembered and caution taken in interpreting preliminary test results.

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Homosexual men, HIV, and sexual risk in 2001

EDITOR,—A 33 year old homosexual white male attended an HIV outpatient clinic as an urgent case. He was a healthcare worker involved at a senior level in the care of HIV positive clients and had himself received an HIV diagnosis in 1994. Antiretroviral therapy had commenced in 1998 with a combination of didanosine, stavudine, and nevirapine. This was well tolerated and brought about rapid and sustained viral suppression and a significant increase in CD4 count. The client had been an irregular attender and had often collected repeat prescriptions without medical review. Significantly, no details of his sexual history were recorded for the 6 years following diagnosis, although the existence of a partner was acknowledged in the month before his acute presentation.

He attended with a 2 week history of fever in the absence of any other symptoms. On examination he was pyrexial with a

temperature of 38.8°C. A 1 cm raised nodule on the centre of the dorsum of the tongue was noted. There was no apparent regional lymphadenopathy.

Requests for viral and bacterial culture were made and blood was sent for syphilis serology. In order to exclude a neoplastic lesion an urgent referral was made to an otolaryngologist for biopsy. At this stage he reported that his only recent sexual activity had been with his longstanding partner.

Two weeks after his initial presentation he reattended for review. The previously noted nodule had become ulcerated yet remained painless and firm to palpation (fig 1). TPPA, FTA IgG, and FTA IgM measured at the time of initial presentation were found to be positive with a reactive VDRL at a 1:32 dilution. A diagnosis was therefore made of primary syphilis with a chancre of the tongue. The client opted for treatment with doxycycline 100 mg three times daily for 3 weeks. On further questioning he revealed that he had engaged in unprotected anal and oral sex with his regular partner (who had recently tested HIV antibody negative) but had also had oral sex with a casual male partner approximately 3 months before his acute presentation. This casual contact was untraceable. However, the client's regular partner attended for assessment. He was found to have oropharyngeal ulceration and strongly positive syphilis serology consistent with primary syphilis.

COMMENT

We believe that this case highlights some of the important issues faced by people living with HIV in this decade. How is it that an informed and intelligent individual who has professional experience of HIV puts himself and others at risk in this way? Since the early days of the epidemic a cornerstone of HIV management has been a process of education and empowerment to enable the people living with HIV to minimise the risk of acquiring a sexually transmitted infection or transmitting HIV infection to his or her partners. The huge changes in sexual behaviour seen in the 1980s and 1990s among homosexual men were unprecedented and frequently brought about by gay men's groups in the face of government indifference or inaction. A standard was set for HIV control for other communities to follow.

There is good evidence of increased participation in unsafe sex among homosexual men in the United Kingdom⁷ and other Western societies. The availability of effective anti-HIV treatment has possibly promoted this.² A process of "safer sex fatigue" has set in; our clients are bored with hearing this mantra and we are bored with chanting it. As the relationship between HIV



Figure 1 A raised nodule, 1 cm in size, on the centre of the dorsum of the tongue.